PATENT SPECIFICATION

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644,349

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PROVISIONAL SPECIFICATION

Improvements in Mincing or Chopping Appliances

We, GEORGE EDMONDS LIMITED, a Company registered under the laws of Great Britain, of Soho Hill Works, Soho Hill, Hockley Brook, Birmingham, 19, do hereby declare the nature of this invention to be as follows:—

This invention relates to hand-operated appliances for mincing or cutting fruit, vegetables and other substances, such appliances being of that kind comprising a cutter unit consisting of a plurality of laterally-spaced cutter discs rotatably mounted in a frame or holder provided with a handle by means of which the appliance may be moved backwards and forwards to cause the discs to roll over a board or other surface and cut up the food or other substance placed thereon.

The principal object of the present invention is to provide an improved mincing or chopping appliance of the above kind with means whereby the cutter unit may readily be detached for cleaning.

Another object of the invention is the provision of a mincing or chopping appliance which can be easily and cheaply manufactured.

According to the invention, a mincing or chopping appliance of the kind referred to comprises a frame or holder carried by or connected to a handle and having at its sides open bearing-pockets receiving trunnion or journal ends of a rotatable cutter unit, in combination with a closure member adapted normally to close the pockets, in order to retain the said trunnion or journal ends therein, the said frame or holder and the said closure member being adapted to be separated from each other, to allow the cutter unit to be removed.

Preferably, the frame or holder is rigidly attached to the handle, and the closure member is in the form of a slotted guard plate, hingedly attached to the frame or holder.

Thus, in carrying out a convenient embodiment of the invention, a mincing or chopping appliance is constructed with a suitably shaped handle carrying at one end a metal frame. This metal frame is formed from a single metal strip, which is set on edge and bent into a substantially rectangular formation, the two free ends of the strip coming together at the centre of one end of the rectangular frame so constructed and being bent outwards to form prongs inserted into the end of the handle, in order securely to attach the frame thereto. The metal frame carries, in addition to the aforesaid prongs, a pair of pockets for the reception of a rotatable cutter unit, the said pockets being disposed at the centre of each side of the frame, whilst the outer portion of the frame, situated beyond the pockets, is upwardly curved, so that the end of the frame remote from the handle is in the form of a raised cross-bar.

The pockets disposed at the sides of the frame are each formed by first pressing inwardly the central part of the appropriate side of the frame to form a shallow U-shaped depression, and then pressing outwardly the lower part of the base of the said depression to form a re-entrant portion in relief to the base of the depression and lying in approximately the same plane as the original side of the frame. The upper edge of the said re-entrant portion, and also the lower edge of the bridge-piece formed by the part of the depression base not subjected to a second pressing operation, is of an inverted V-shape in contour, with an upwardly directed open slot between the planes of the said re-entrant portion and the said bridge-piece, and the arrangement

[*Price* 2/-]

Price 4s 6d

is such that a pocket is formed for the reception of a trunnion end of the cutter unit, with the bearing surface of the said trunnion end bearing upwardly into and against the V-shaped edge of the bridge-piece, and with the outer extremity of the trunnion end lying adjacent to the inner surface of the outwardly pressed or re-entrant portion, the latter thus forming a stop for preventing excessive endwise movement of the cutter unit. In order to retain each trunnion end of the cutter unit in the pockets a suitable closure member is provided, as hereinafter described.

The rotatable cutter unit is formed with a plurality of cutter discs carried by a hollow spindle and spaced from each other by distance collars. The two outer discs of the unit are also provided with collars next to their outer faces, these two outer collars serving to form the above mentioned trunnion ends of the cutter unit. The collars, and the interposed cutter discs, are kept securely in place by lugs formed on the end of the hollow spindle and bent over the free ends of the two outer collars.

The closure member referred to above consists of a hinged metal guard plate, upwardly bent at one end to conform with the shape of the pocket-carrying frame, and adapted, when in its closed position, to lie flush against the lower edge of the said frame, thus closing the lower ends of the pockets and retaining the cutter unit in place. This guard plate is formed out of a single metal blank and is provided with a plurality of slots adapted to receive the cutter blades, when the cutter unit is in position, in the known manner. The rear end of the guard plate is hinged to that part of the metal pocket-carrying frame adjacent to the handle, and in order to secure the said guard plate in place, when in its closed position, the forward of upwardly directed edge of the guard plate is bent over to retain in place a flat metal strip extending for the whole width of the plate and carrying at its ends a pair of upstanding side arms. Each side arm has at its upper end a pressed-out projection or pip, and the construction is such that, when the guard plate is moved against the frame into a closed position, the said projections or pips wipe over the inside faces of the frame and spring outwards above the upper edge of the said frame, the metal being sufficiently resilient for this purpose, thus locking the plate in position.

Hinged to the frame at points near to the hinge of the guard plate, and lying above the frame, is a metal shield, suitably curved to clear the upper edges of the cutter discs when the cutter unit is in position, and adapted to snap in place over the raised cross-bar forming the outer end of the frame. This shield serves to protect the user from the cutter unit.

Thus, in order to remove the cutter unit from the appliance, for the purpose of cleaning, for example, it is only necessary to turn the appliance upside down and to snap open the slotted guard plate with the fingers, whereupon the cutter unit can at once be lifted out of the pockets. In re-assembling, the reverse operation is followed, the cutter unit being inserted into the pockets and the guard plate closed.

As a variation from the above embodiment, the pockets may be arranged to face upwards, the closure member consisting of the top shield, for example, and being hinged above the pocket carrying frame or holder. Also, the pockets can be formed by providing suitable open-ended slots or notches in the frame or holder.

Dated this 14th day of September, 1948.

H. N. & W. S. SKERRETT,
24, Temple Row, Birmingham, 2.
Agents for Applicants.

COMPLETE SPECIFICATION

Improvements in Mincing or Chopping Appliances

We, GEORGE EDMONDS LIMITED, a Company registered under the laws of Great Britain, of Soho Hill Works, Soho Hill, Hockley Brook, Birmingham, 19, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention relates to hand-operated appliances for mincing or cutting fruit, vegetables and other substances, such appliances being of that kind comprising a cutter unit consisting of a plurality of laterally-spaced cutter discs rotatably mounted in a frame or holder provided with a handle by means of which the appliance may be moved backwards and forwards to cause the discs to roll over a board or other surface and cut up the food or other substance placed thereon.

The principal object of the present invention is to provide an improved mincing or chopping appliance of the

above kind with means whereby the cutter unit may readily be detached for cleaning.

Another object of the invention is the provision of a mincing or chopping appliance which can be easily and cheaply manufactured.

According to the invention, a mincing or chopping appliance of the kind referred to comprises a frame or holder carried by or connected to a handle and having at its sides open bearing-pockets receiving trunnion or journal ends of a rotatable cutter unit, in combination with a closure member adapted normally to close the pockets, in order to retain the said trunnion or journal ends therein, the said frame or holder and the said closure member being adapted to be separated from each other, to allow the cutter unit to be removed.

Preferably, the frame or holder is rigidly attached to the handle, and the closure member is in the form of a slotted guard plate, hingedly attached to the frame or holder.

Figure 1 of the accompanying drawings shows an improved mincing or chopping appliance constructed in accordance with the present invention and provided with an upper protective shield and a lower slotted guard plate, the shield and guard plate being shown in their respective open positions by dotted lines.

Figure 2 is a longitudinal section on the line II—II, Figure 3.

Figure 3 is an underside plan view of the appliance with part of the guard plate cut away.

Figure 4 is a cross-section on the line IV—IV, Figure 1.

Figure 5 is a fragmentary sectional view showing details of the locking means between the slotted guard plate and the frame of the appliance.

Figure 6 represents a perspective view of the appliance in an inverted position, and with the cutter unit removed and the guard plate in an open position.

Figure 7 shows an elevation of the cutter unit, detached from its mounting.

Figure 8 is an end elevation of the said cutter unit.

Referring to the drawings, a mincing or chopping appliance is constructed with a suitably shaped handle 1 carrying at one end a metal frame 2. This metal frame 2 is formed from a single metal strip, which is set on edge and bent into a substantially rectangular formation, the two free ends of the strip coming together at the centre of one end of the rectangular frame, so constructed and being bent outwards to form prongs 3 inserted into the end of the handle, in order securely to attach the frame 2 thereto. The metal frame 2 carries, in addition to the aforesaid prongs 3, a pair of bearing pockets 4 for the reception of a rotatable cutter unit 5, the said pockets 4 being disposed one at the centre of each side of the frame 2, whilst the outer portion of the frame 2, situated beyond the pockets 4, is upwardly curved, so that the end of the frame 2 remote from the handle 1 is in the form of a raised cross-bar 6.

The pockets 4 disposed at the sides of the frame 2 are each formed by first pressing inwardly the central part of the appropriate sides of the frame to form a shallow U-shaped depression, and then pressing outwardly the lower part of the base of the said depression to form a re-entrant portion 7 in relief to the remaining portion of the base of the depression and lying in approximately the same plane as the original side of the frame 2. The upper edge of the said re-entrant portion 7, and also the lower edge of the bridge-piece 8 formed by the part of the depression base not subjected to a second pressing operation, is of an inverted V-shape in contour, with an upwardly directed open slot 9 between the planes of the said re-entrant portion 7 and the said bridge-piece 8, and the arrangement is such that a pocket is formed for the reception of a trunnion end 10 of the cutter unit 5, with the bearing surface of the said trunnion end 10 bearing upwardly into and against the V-shaped edge of the bridge-piece 8, and with the outer extremity of the trunnion end 10 lying adjacent to the inner surface of the outwardly pressed or re-entrant portion 7, the latter thus forming a stop for preventing excessive endwise movement of the cutter unit 5. In order to retain each trunnion end of the cutter unit 5 in the pockets 4 a suitable closure member is provided, as hereinafter described.

The rotatable cutter unit 5 is formed with a plurality of cutter discs 11 carried by a hollow spindle 12 and spaced from each other by distance collars 13. The two outer discs of the unit are also provided with collars 13 next to their outer faces, these two outer collars serving to form the above mentioned trunnion ends 10 of the cutter unit. The collars 13, and the interposed cutter discs 11, are kept securely in place by lugs 14 formed on the end of the hollow spindle 12 and bent over the free ends of the two outer collars 13.

The closure member referred to above consists of a hinged metal guard plate 15, upwardly bent at one end to conform with the shape of the pocket-carrying frame 2, and adapted, when in its closed position, to lie flush against the lower edge of the said frame 2, thus closing the lower ends

of the pockets 4 and retaining the cutter unit 5 in place. This guard plate 15 is formed out of a single metal blank and is provided with a plurality of slots 16 adapted to receive the cutter discs 11 when the cutter unit 5 is in position, in the known manner. The rear end of the guard plate 15 is hinged at points 20 to that part of the metal pocket-carrying frame 2 adjacent to the handle 1, and in order to secure the said guard plate 15 in place, when in its closed position, the forward or upwardly directed edge 15a of the guard plate is bent over to retain in place a flat metal strip 16 extending for the whole width of the plate and carrying at its ends a pair of upstanding side arms 17. Each side arm has at its upper end a pressed-out projection or pip 18, and the construction is such that, when the guard plate 15 is moved against the frame 2 into a closed position, the said projections or pips 18 wipe over the inside faces of the frame 2 and spring outwards above the upper edge of the said frame, as shown in Figure 5, the metal being sufficiently resilient for this purpose, thus locking the plate 15 in position.

Hinged to the frame 2 at points 19 near to the hinge of the guard plate 15, and lying above the frame, is a metal shield 21, suitably curved to clear the upper edges of the cutter discs 11 when the cutter unit 5 is in position, and adapted to snap in place over the raised cross-bar 6 forming the outer end of the frame 2. This shield 21 serves to protect the user from the cutter unit 5.

Thus, in order to remove the cutter unit 5 from the appliance for the purpose of cleaning, for example, it is only necessary to turn the appliance upside down, with the slotted guard plate 15 uppermost, and to snap open the said guard plate 15 with the fingers, whereupon the cutter unit 5 can at once be lifted out of the pockets 4. In re-assembling, the reverse operation is followed, the cutter unit 5 being inserted into the pockets 4 and the guard plate 15 closed.

As a variation from the above embodiment, the pockets may be arranged to face upwards, the closure member consisting of the top shield, for example, and being hinged above the pocket carrying frame or holder. Also, the pockets can be formed by providing suitable open-ended slots or notches in the frame or holder.

Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed, we declare that what we claim is:—

1. A mincing or chopping appliance, of the kind referred to, comprising a frame or holder carried by or connected to a handle and having at its sides open bearing-pockets receiving trunnion or journal ends of a rotatable cutter unit, in combination with a closure member adapted normally to close the pockets, in order to retain the said trunnion or journal ends therein, the said frame or holder and the said closure member being adapted to be separated from each other, to allow the cutter unit to be removed.

2. A mincing or chopping appliance, as claimed in Claim 1, wherein the frame or holder is rigidly attached to the handle and the closure member is hingedly attached to the frame or holder.

3. A mincing or chopping appliance, as claimed in Claims 1 or 2, wherein the closure member is in the form of a slotted guard plate adapted to receive the cutter discs.

4. A mincing or chopping appliance, as claimed in any one of the preceding claims, wherein the open bearing-pockets are formed by outwardly pressing portions of the sides of the frame or holder.

5. A mincing or chopping appliance, as claimed in Claim 4, wherein each pocket is formed by first pressing inwardly the appropriate part of the frame or holder to form a U-shaped depression, and then pressing outwardly part of the base of the said U-shaped depression to form a re-entrant portion in relief to the remaining part of the base of the depression.

6. A mincing or chopping appliance, as claimed in any one of the preceding claims, wherein the frame or holder is constructed from metal strip set on edge, and wherein the closure member is secured in place, when in its closed position, by side arms projecting from, and carried by, the said closure member and each having at or near its extremity a pressed-out projection or pip adapted to wipe over the adjacent face of the said frame or holder and to be sprung over an edge of the latter.

7. A mincing or chopping appliance, as herein described with reference to the accompanying drawings.

Dated this 27th day of September, 1948.
H. N. & W. S. SKERRETT,
24, Temple Row, Birmingham, 2.
Agents for Applicants.

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Fig. 1.

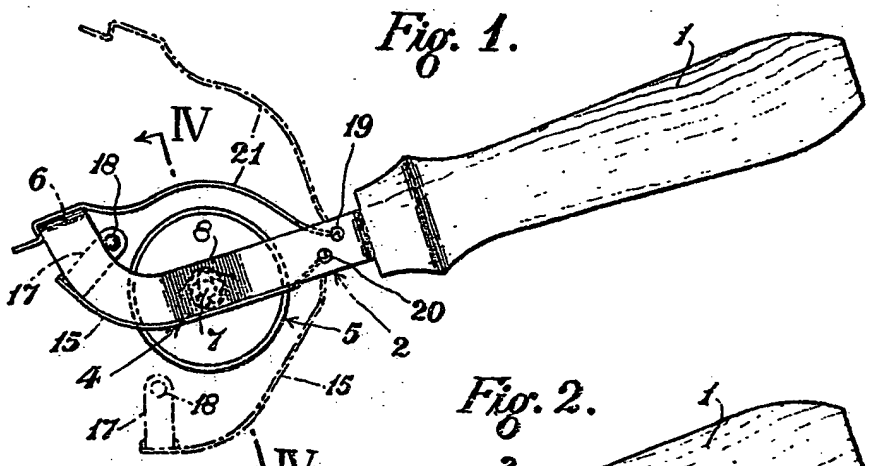


Fig. 2.

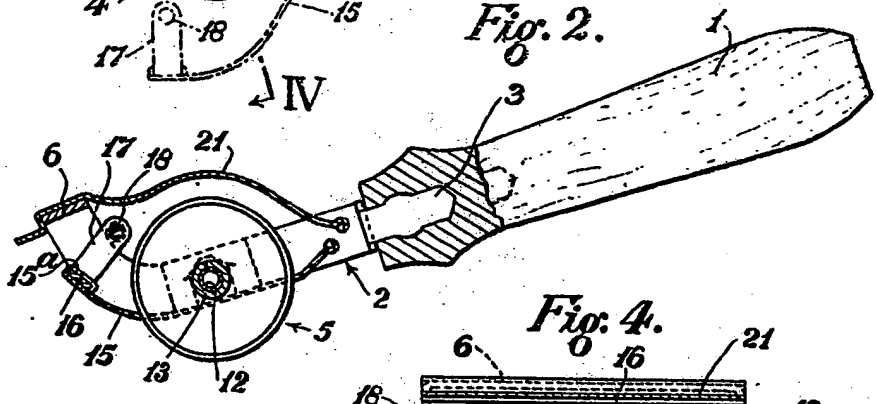


Fig. 4.

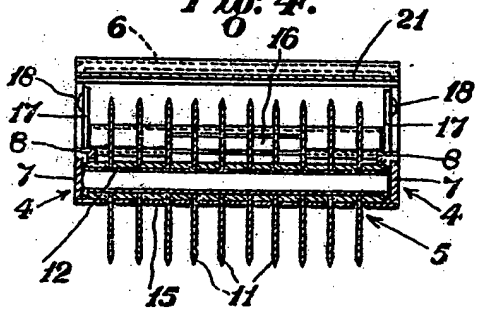


Fig. 5.

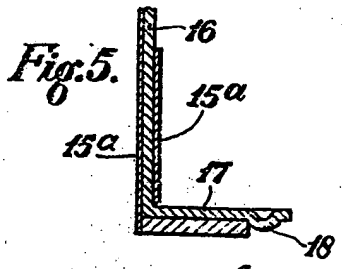


Fig. 3.

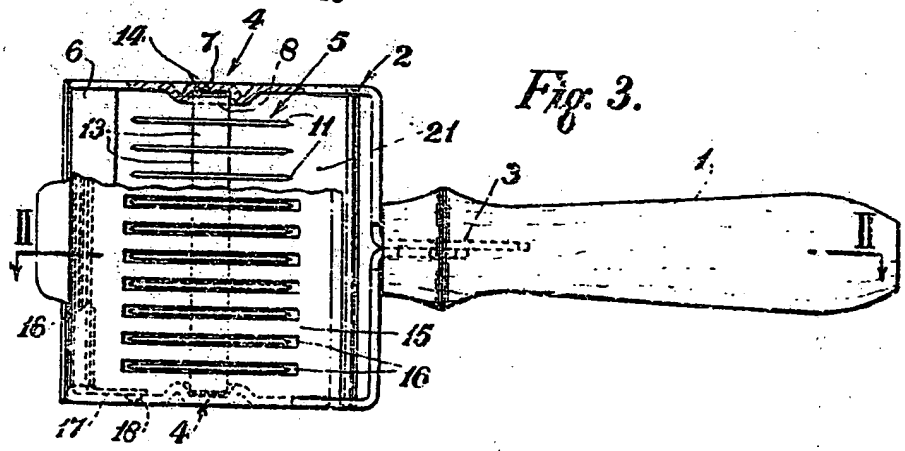


Fig. 6.

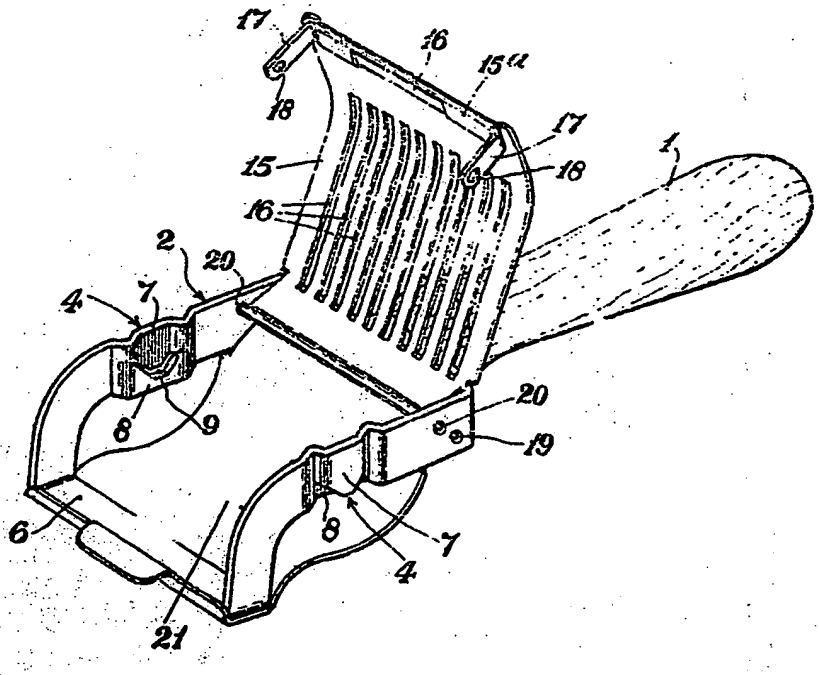


Fig. 7.

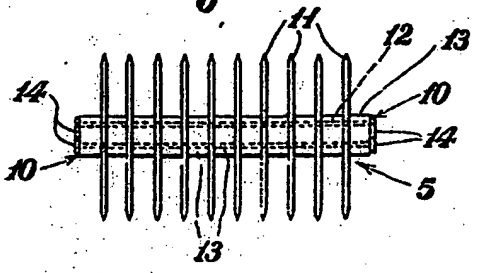
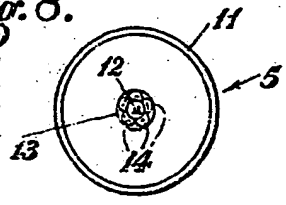


Fig. 8.



H.M.S.O. (Ty. P.)

644,349 COMPLETE SPECIFICATION

SHEET 1

2 SHEETS

SHEET 2

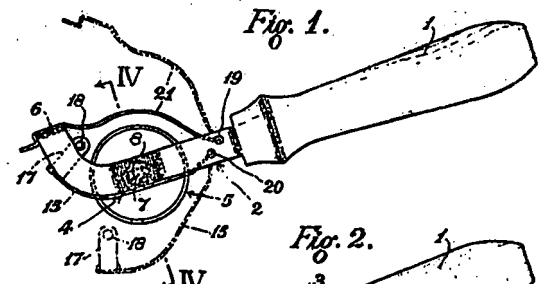


Fig. 1.

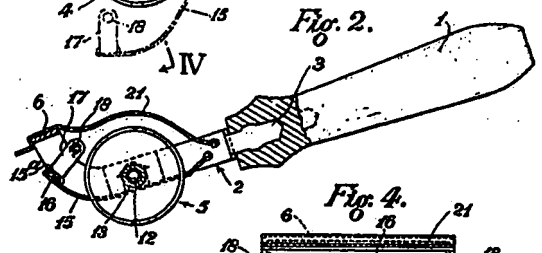


Fig. 2.

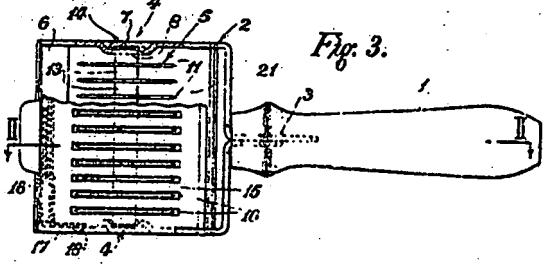


Fig. 3.

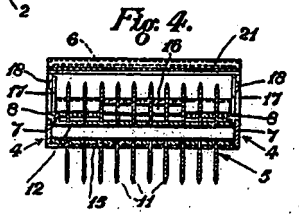


Fig. 4.

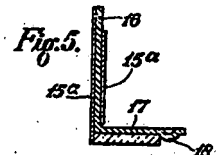


Fig. 5.

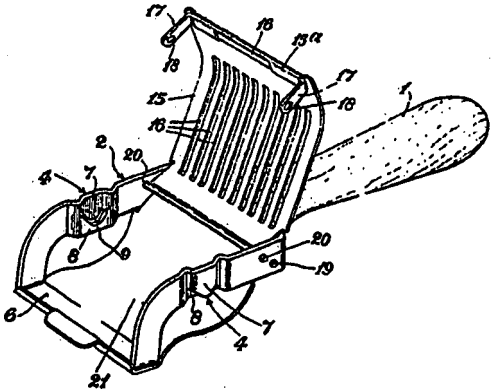


Fig. 6.

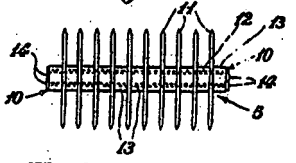


Fig. 7.

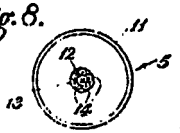


Fig. 8.

This Drawing is a reproduction of the Original on a reduced scale.

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